Sub B1

1. (Amended) A method of eliminating unwanted steps at edges in image representations in the line raster, in particular in on-line operation, characterized by the steps:

a) application of an edge operator to an image portion for coarsely ascertaining at least one rastered edge configuration,

b) determining the position of at least a first pixel from the amount of those pixels which form the rastered edge configuration or adjoin said rastered edge configuration,

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c) approximation of a straight line for ascertaining a probably configuration of the unrastered image edge in the proximity of the first pixel,

d) ascertaining a criterion from the approximation straight line and the position of the first pixel for mixing a color X to the color C in the first pixel considered, and

e) mixing the ascertained color X to the color C in the first pixel considered.

2. A method as set forth in claim 1 characterized in that the criterion of method step d), in dependence on the position of the pixel being considered relative to the approximation straight line, establishes which color X is mixed to the color C of the pixel being considered.

3. A method as set forth in claim 2 characterized in that the criterion in accordance with method step d), in dependence on the position of the pixel being considered relative to the approximation straight line, establishes that the color of at least one adjacent pixel is mixed in weighted mode to the color of the pixel being considered.

4. (Amended) A method as set forth in claim 1 characterized in that in the case of a pixel being considered which is not intersected by the approximation straight line, the color remains unchanged.

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5. (Amended) A method as set forth in claim 1 characterized in that in the case of a pixel being considered which is intersected by the approximation straight line the resultant color R is determined in accordance with the following criterion:

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the approximation straight line divides the pixel being considered into two surface portions F_1, F_2, wherein $F_1 + F_2 = 1$, with 1 being the total area of the pixel, wherein F_1 is that surface portion in which the pixel center point lies:

- mixed to color C of the pixel being considered is the color X of that adjacent pixel which adjoins the longest edge, formed by the raster, of the surface portion F_2.

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6. A method as set forth in claim 5 characterized in that the resultant color R arises out of the original color C of the pixel being considered and the mixed color X of an adjacent pixel in accordance with the following equation:

$R = F_1 \times C + F_2 \times X$

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7. (Amended) A method as set forth in claim 5 characterized in that the surface portions F_1, F_2 are approximated by a suitable approximation process.

8. (Amended) A method as set forth in claim 1 characterized in that said method steps are applied to an image portion treated by means of rendering and/or a shading process.

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9. A method as set forth in claim 8 characterized in that the shading/rendering is triangle- or scanline-based, or that it involves Gouraud or Phong shading.

10. A method as set forth in one of the preceding claims characterized in that the above-specified method steps a) through e) are carried out individually or in groups in time-displaced relationship.

11. A method as set forth in claim 10 characterized in that the time displacement is at least one image line.

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12. (Amended) A method as set forth claim 1 characterized in that the processing is effected in time-displaced relationship in a frame buffer without further intermediate storage.

13. (Amended) A method as set forth in claim 1 characterized in that the approximation straight line passes over a plurality of steps of the rastered edge configuration and that the approximation straight line ends when the criteria

1) there can occur a maximum of two different step lengths, the step lengths of which may also differ by a maximum of 1,
2) only one of the two step lengths may occur a plurality of times in succession,
3) the sequential arrangement of the numbers of the steps which are of the same length gives a number sequence in which there is alternately always a one and then any number (›0). The ones (only those at each second position) are deleted from that sequence. In the sequence obtained only two different numbers which differ by one may again occur,
4) in the sequence obtained in 3, only one of the two possible numbers may occur a plurality of times in succession,
5) by repeatedly applying rules 3, and 4, to the number sequence, it is possible to obtain an ever more global view onto the edge,

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are checked in rising succession and at least one criterion is not fulfilled.

14. (Amended) A method as set forth in claim 1 characterized in that the approximation straight line passes over a plurality of steps of the rastered edge configuration and that the approximation straight line ends when one of the criteria

1) there can occur a maximum of two different step lengths, the step lengths of which may also differ by a maximum of 1,
2) only one of the two step lengths may occur a plurality of times in succession,
3) the sequential arrangement of the numbers of the steps which are of the same length gives a number sequence in which there is alternately always a one and then any n umber (›0). The ones (only those at each second position) are deleted from that sequence. In the sequence obtained only two different numbers which differ by one may again occur,
4) in the sequence obtained in 3, only one of the two possible numbers may occur a plurality of times in succession,

or one of the criteria 1), 2), 3) or one of the criteria 1), 2) is not fulfilled.

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15. (Amended) A method as set forth in claim 1 characterized by the provision of a triple buffer, wherein the three resulting buffers share in cyclic interchange in parallel relationship the method steps of rendering post-anti-aliasing and image reproduction.

16. (New) A method of eliminating unwanted steps at edges in an image representation, characterized by the steps:

a) ascertaining at least one rastered edge configuration from an image representation to identify pixels which form the rastered edge configuration or adjoin the rastered edge configuration,

b) determining the position of at least a first pixel from the pixels which form the rastered edge configuration or adjoin said rastered edge configuration,

c) approximating a straight line according to a probable configuration of the unrastered image edge in the proximity of the first pixel,

d) ascertaining a criterion from the approximated straight line and the position of the first pixel for mixing a color X to the color C in the first pixel considered, and

e) mixing the ascertained color X to the color C in the first pixel considered according to the criterion.

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17. (New) A method as set forth in claim 16 characterized in that in the case of a pixel being considered which is not intersected by the approximated straight line, the color of the pixel remains unchanged.

18. (New) A method as set forth in claim 16 characterized in that in the case of a pixel being considered which is intersected by the approximation straight line the resultant color R of the pixel is determined in accordance with the following criterion:

the approximation straight line divides the pixel being considered into two surface portions F_1, F_2, wherein $F_1 + F_2 = 1$, with 1 being the total area of the pixel, wherein F_1 is that surface portion in which the pixel center point lies: